COMMUNICATION DEVICE 103 CD-ROM DRIVE CD-ROM SCANNER 52 KEYBOARD 106 MEMORY HARD DISK 105 CPU DISPLAY DEVICE 104

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FIG. 2

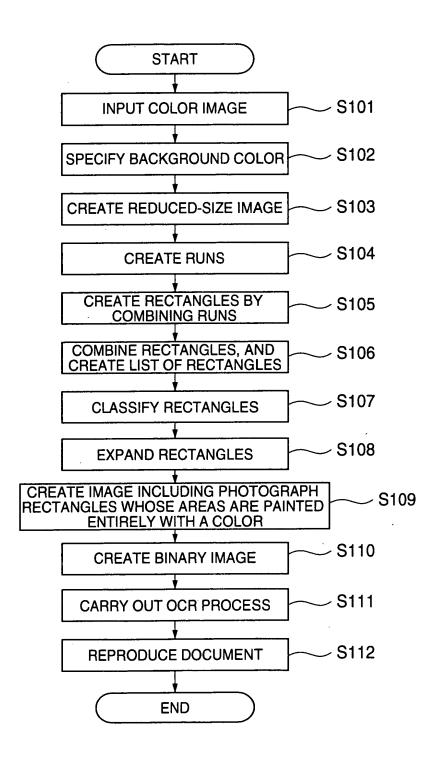
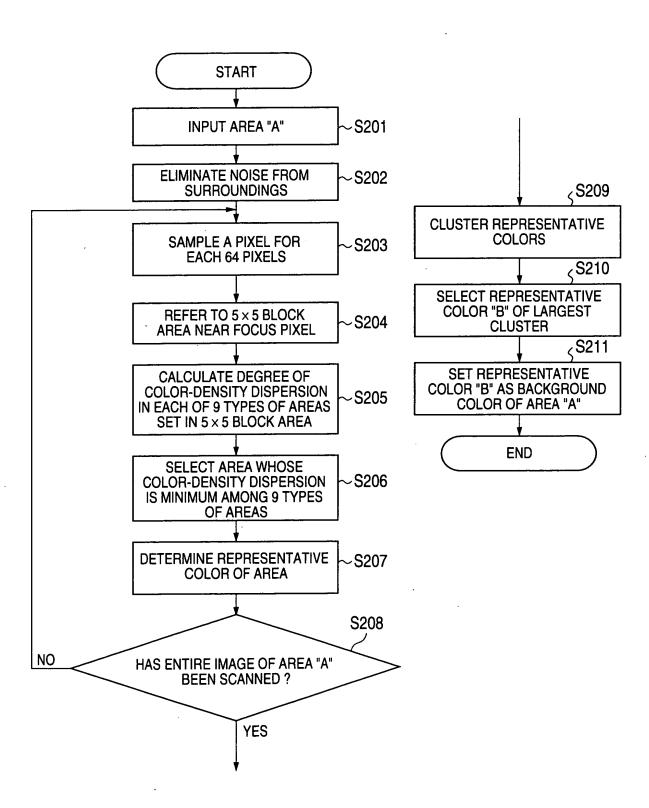


FIG. 3



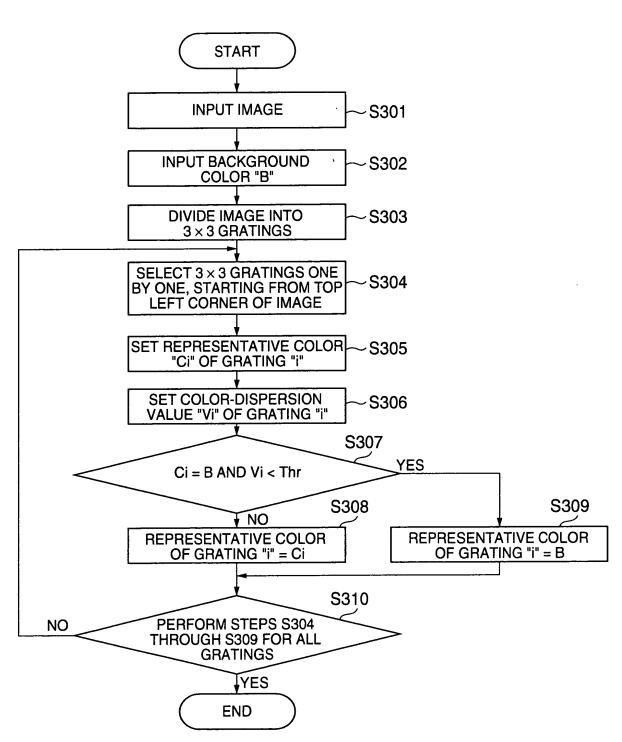
area8	:	.888.	.0P8.	.888.	:	
area7	:	•	. P.	. 111.	.111.	
area6	•	99	P66	99	•	
area5		55	55P	55	•	
area4	. 444.	.444.	. Р	•	:	
area3	•	•	P3.	333	33	
area2	:	:	.2P	222	22	
areal	11	.,111	P1.	•	:	
area0	00	000	.0P.	:	•	

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P: CENTER OF 5×5 BLOCK AREA : : POINT OUTSIDE EACH AREA(area n(n=0...8)) n: POINT INSIDE EACH AREA(n=0...8)

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FIG. 5



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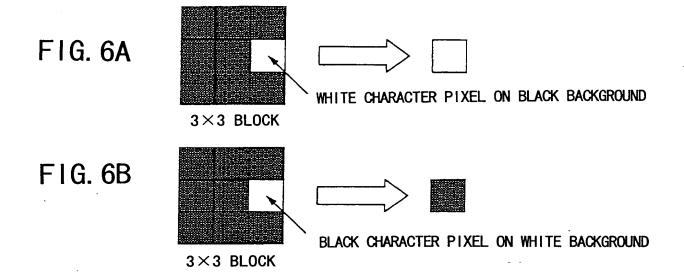
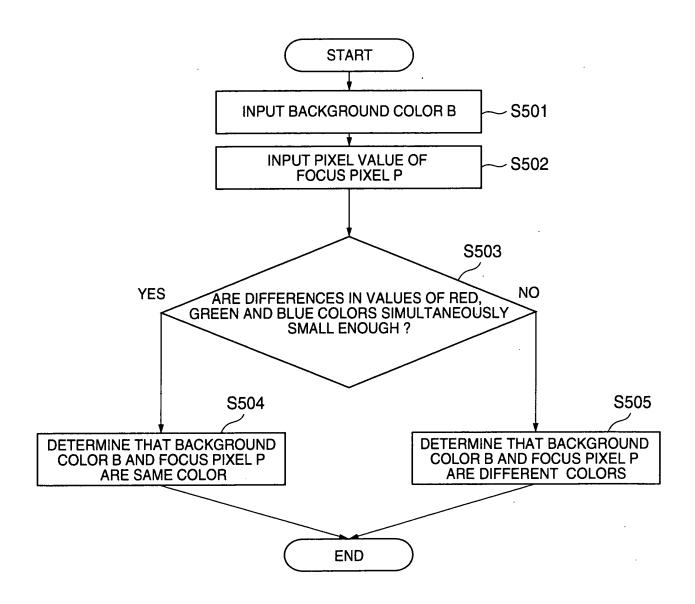


FIG. 7

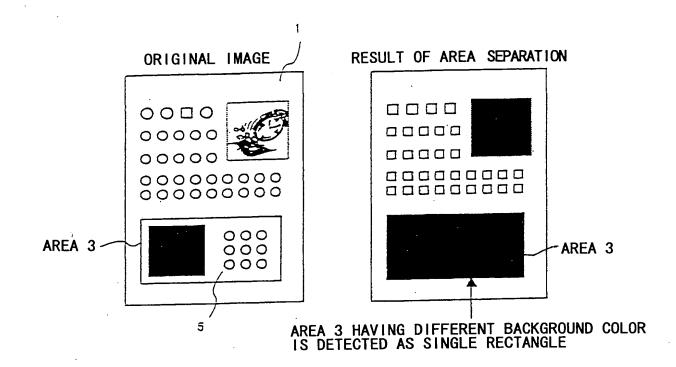


**S**421 DETERMINE RECTANGLE R AS PHOTOGRAPH RECTANGLE **S416** SET NEXT RECTANGLE IN RECTANGLE LIST AS RECTANGLE HAVE ALL RECTANGLES IN RECTANGLE LIST BEEN CLASSIFIED **S**420 웆 2 ~S415 ~S417 **S418** CREATE LARGE CHARACTER
RECTANGLE T INCLUDING CONTINUOUS
CHARACTER RECTANGLES **S419** IS AREA OF RECTANGLE T
LARGE ENOUGH COMPARED TO AREA
OF RECTANGLE R? ADD RECTANGLE T AS CHARACTER RECTANGLE IN RECTANGLE LIST DISCARD RECTANGLE R FROM RECTANGLE LIST DO CONTINUOUS CHARACTER RECTANGLES EXIST ON LINE IN RECTANGLE R? YES YES 용 S402 ~S408 ~S409 ~S410 ~S412 ~S413 ~S411 **S405** ~S402 ~S401 15 HEIGHT OF RECTANGLE R SHORT ENOUGH CLASSIFY RECTANGLES IN RECTANGLE R ( RECURSIVE PROCESS) COMBINE RECTANGLES IN RECTANGLE R IS AREA OF RECTANGLE R SMALL ENOUGH SET RECTANGLE RAS CANDIDATE FOR FIGURE / PHOTOGRAPH RECTANGLE HAVE RULED-LINE CHARACTERISTIC 2 CREATE RECTANGLES BY COMBINING RUNS IN RECTANGLE R SET CURRENTLY REFERRED RECTANGLE R CREATE RUNS IN RECTANGLE R SPECIFY BACKGROUND COLOR INPUT RECTANGLE LIST 2 2 웆 OF RECTANGLE R START YES YES YES DETERMINE RECTANGLE R AS CHARACTER RECTANGLE (GO TO STEP \$421) DETERMINE RECTANGLE R AS RULED-LINE RECTANGLE (GO TO STEP S421) S406

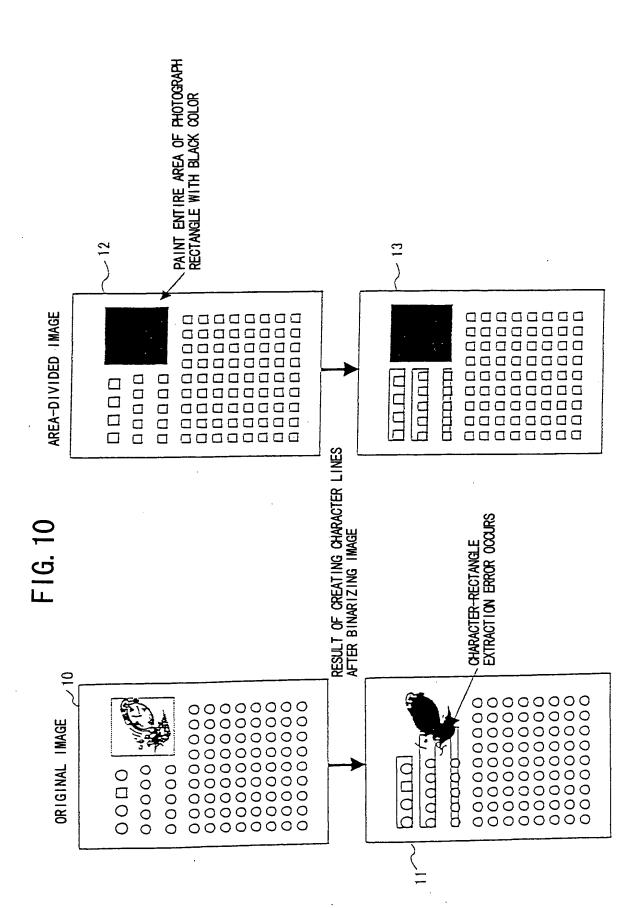
YES

DDARGAA CLECA

FIG. 9



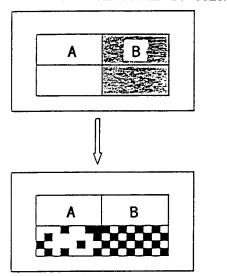
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## FIG. 11

ORIGINAL IMAGE (EACH CELL IS SEPARATED BY COLOR)

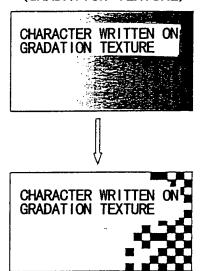


RESULT OF BINARIZING ORIGINAL IMAGE BY ANALYZING EACH AREA

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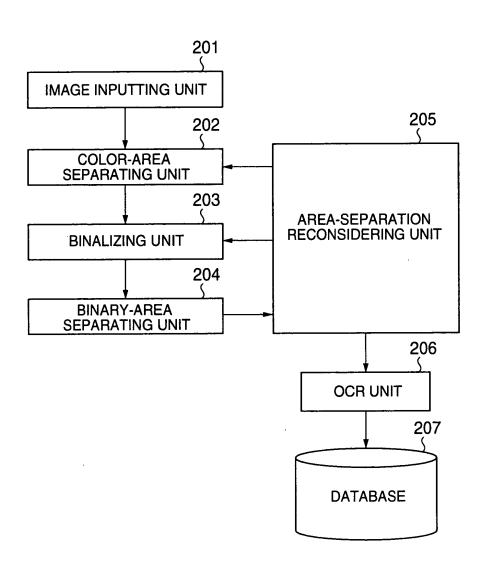
### FIG. 12

# ORIGINAL IMAGE (GRADATION TEXTURE)



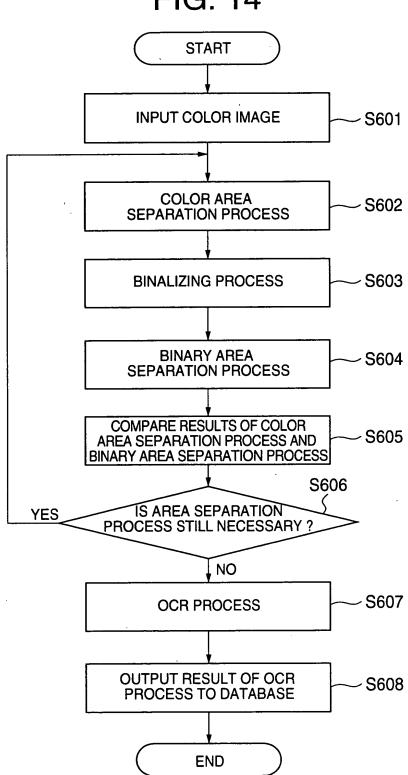
RESULT OF BINARIZING ORIGINAL IMAGE BY ANALYZING EACH AREA

FIG. 13



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FIG. 14



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FIG. 15

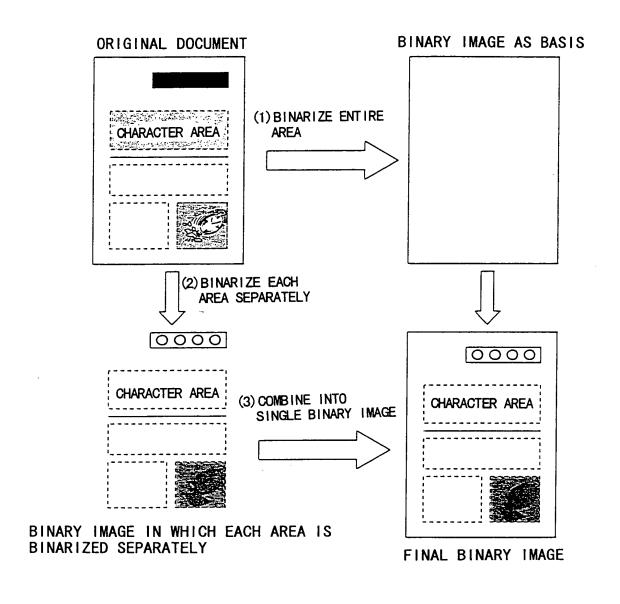
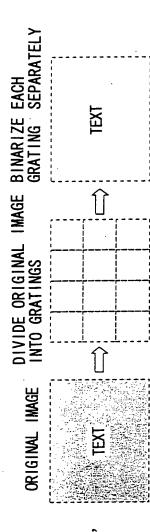


FIG. 16



"TEXT AREA"

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# FIG. 17

WIDTH OF AREA	WIDTH OF GRATING	
512	32	
1024	64	
2048 OVER	128	

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FIG. 18

ORIGINAL IMAGE

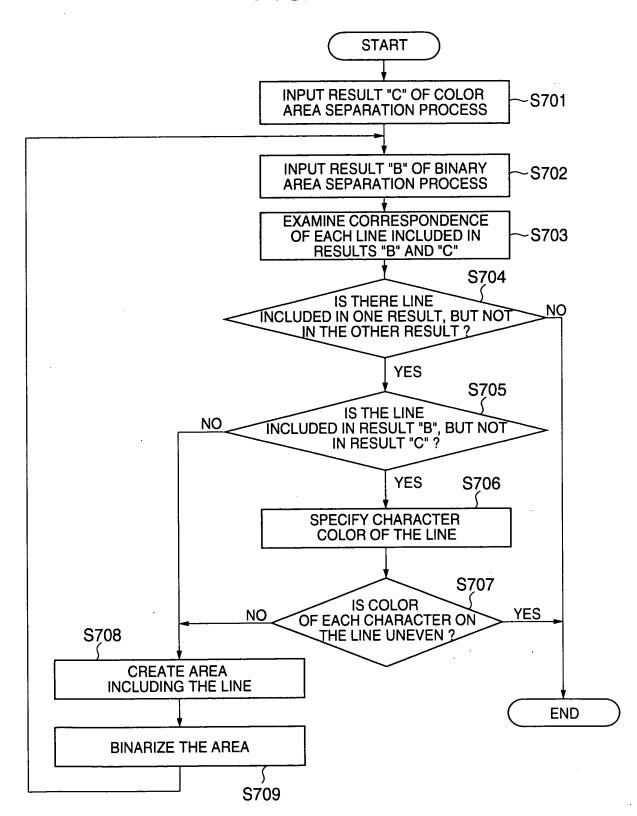
BOURSE

RESULT OF COLOR AREA SEPARATION PROCESS

RESULT OF BINARY AREA SEPARATION PROCESS

COURSE

FIG. 19



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FIG. 20A

FIG. 20B

لے	
La	
L₀4	[

RESULT OF COLOR AREA SEPARATION PROCESS

AREA RECTANGLE TEXT RECTANGLE

#### RESULT OF BINARY AREA SEPARATION PROCESS

FIGURE/ PHOTOGRAPH	L <sub>61</sub>
	L <sub>b4</sub>

In the case, case, case, or were even case case, case, are case,

FIG. 21

